## Remarks

### 1. Summary of the Office Action

In the Office Action mailed May 3, 2006, under 35 U.S.C. § 103(a), the Examiner rejected claims 1, 5-17, 21-33, and 37-48 on grounds of obviousness over a combination of U.S. Patent No. 6,728,265 to Yavatkar et al. ("Yavatkar et al.") and U.S. Patent No. 6,052,375 A ("Bass et al."). In addition, the Examiner objected to claims 2-4, 18-20, and 34-36 as being dependent upon a rejected base claim, but indicated that the claims would be allowable if rewritten in independent form including all of the limitations of the base claim and intervening claims.

### 2. Status of the Specification and Claims

Applicant has amended the specification to correct various typographical errors. Now pending in this application are claims 1-48, of which claims 1, 17, and 33 are independent, and the remainder are dependent.

### 3. Response to Rejections

#### a. Response to § 103 Rejection of Independent Claim 1

The Examiner rejected independent claim 1 under 35 U.S.C. § 103(a) as being obvious over the combination of Yavatkar et al. and Bass et al. Under M.P.E.P. § 2143, in order to establish a *prima facie* case of obviousness of a claim over a combination of references, the Examiner must establish that the combination discloses or suggests every element recited in the claim.

Applicant respectfully submits that independent claim 1 patentably distinguishes over the combination of Yavatkar et al. and Bass et al., because the combination fails to disclose or suggest all of the claim elements. At a minimum, for

instance, the combination of Yavatkar et al. and Bass et al. fails to disclose or suggest the claim element "logic to dynamically allocate space in said memory to the queues in the plurality of queues."

In the Office Action, the Examiner asserted on page 3 that Yavatkar et al. inherently teaches "logic to dynamically allocate space in said memory to the queues in the plurality of queues." Under M.P.E.P. § 2112, the fact that a certain result or characteristic may occur or be present in the prior art is insufficient to establish that the result or characteristic is inherent. Moreover, M.P.E.P. § 2112 states that "[t]he Examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Ex parte Levy, 17 USPQD2d 1461, 1465 (Bd. Pat. App. & Inter. 1990) (Emphasis in original).

This Office Action lacks sufficient basis in fact and/or technical reasoning to reasonably support the claim limitation that "logic to dynamically allocate space in said memory to the queues in the plurality of queues" necessarily flows from the teachings of Yavatkar et al. The Examiner relies solely on a citation from the prior art reference, Fig 5B, Col. 7, lines 1 – 18. This portion of the specification describes a software mechanism that modifies packets existing in a queue to expedite the transmission of an urgent packet ahead of other packets from the queue, without adversely affecting network bandwidth utilization. This software mechanism does not change the space in memory allocated to the queues nor does it require "logic to dynamically allocate space in said memory to the queues in the plurality of queues." Therefore, the cited material does not provide the necessary basis in fact and/or

technical reasoning to reasonably support the determination that "logic to dynamically allocate space in said memory to the queues in the plurality of queues" is necessarily present in Yavatkar et al.

Furthermore, Bass et al. fails to make up for this deficiency in Yavatkar et al., because, at a minimum, Bass et al. neither discloses nor suggests "logic to dynamically allocate space in said memory to the queues in the plurality of queues." In the Office Action, the Examiner asserted on page 3 that "Bass et al. teaches . . . logic to dynamically allocate space in memory to the queues in the plurality of queues (2 traffic queue allocation manager) (See Fig. 1, Col. 3, lines 49-67)." However, nothing in this portion of the specification relates to dynamic allocation of memory. This portion of the specification describes a block diagram of the high speed traffic scaler and shaper (HSTS). The description of the HSTS includes its major components: a programmable slot time wheel (STW) 9, a traffic scaler state machine 8, a traffic shaper parameter table (TSPT) 7, and a traffic scaler processor complex 1. This portion of the specification also explains that the traffic scaler processor complex includes a traffic queue allocation manager (TQAM) 2, a queue priority arbiter (QP-ARB) 3, a port enable selector 4, a port priority arbiter (PP-ARB) 5, and a direct memory access (DMA) channel arbiter (DMA-ARB) 6. However, none of these components relate to dynamic memory allocation.

Moreover, another portion of the Bass et al. specification indicates that the traffic queue allocation manager 2 is unrelated to dynamic allocation of memory. Specifically, in Col. 4, lines 28 - 34, Bass et al. discloses that "[d]epending on the specific queue control parameters, **each [traffic] queue allocation manager 2**

**allocates the valid queues to the appropriate queue priority arbiters 3 (H/L/U queue priority arbiters)**. (Emphasis added.) Each one of the 18 queue priority arbiters 3 arbitrates within its H/L/U internal arbiters 33 to come out with 18-H, 18-L and 18-U selected queue groups." Therefore, the traffic queue allocation manager 2 in Bass et al. does not appear to relate to the claimed element of "dynamically allocating space in said memory to the queues in the plurality of queues." Rather, the allocation manager of Bass et al. allocates the valid queues to their respective priority arbiter for further processing.

Hence, for at least the reasons discussed above, the combination of Yavatkar et al. and Bass et al. fails to disclose or suggest each and every element of independent claim 1. As such, Applicant respectfully submits the Examiner has not established a *prima facie* case of obviousness of claim 1. Therefore, Applicant submits that independent claim 1 is in condition for allowance.

**b. Response to § 103 Rejection of Independent Claim 17**

The Examiner also rejected claim 17 under 35 U.S.C. § 103(a) as being obvious over the combination of Yavatkar et al. and Bass et al. Applicant respectfully submits that independent claim 17 patentably distinguishes over the combination of Yavatkar et al. and Bass et al. For at least the reasons discussed above, neither Yavatkar et al. nor Bass et al. disclose or suggest the claim element "dynamically allocating space in said memory to the queues in the plurality of queues."

Hence, for at least the reasons discussed above, the combination of Yavatkar et al. and Bass et al. fails to disclose or suggest each and every element of independent claim 17. As such, Applicant respectfully submits the Examiner has not established a *prima*

*facie* case of obviousness of claim 17. Therefore, Applicant submits that independent claim 17 is in condition for allowance.

**c. Response to § 103 Rejection of Independent Claim 33**

The Examiner also rejected claim 33 under 35 U.S.C. § 103(a) as being obvious over the combination of Yavatkar et al. and Bass et al. Applicant respectfully submits that independent claim 33 patentably distinguishes over the combination of Yavatkar et al. and Bass et al. For at least the reasons discussed above, neither Yavatkar et al. nor Bass et al. disclose or suggest the claim element "logic to dynamically allocate space in said memory to the queues in the plurality of queues."

Hence, for at least the reasons discussed above, the combination of Yavatkar et al. and Bass et al. fails to disclose or suggest each and every element of independent claim 33. As such, Applicant respectfully submits the Examiner has not established a *prima facie* case of obviousness of claim 33. Therefore, Applicant submits that independent claim 33 is in condition for allowance.

**d. Response to Rejection of Dependent Claims**

Without addressing the merits of the Examiner's statements regarding the pending dependent claims 2-16, 18-32, and 34-48, which are not conceded, Applicant points out that these claims depend from and include all of the limitations of independent claims 1, 17, and 33. Therefore, Applicant's dependent claims distinguish over the cited references for at least the same reasons discussed above with regard to independent claims 1, 17, and 33. Applicant respectfully requests that the Examiner withdraw the rejections of the pending dependent claims.

## 4. Conclusion

For the foregoing reasons, Applicant submits that all of the pending claims are now in condition for allowance. Therefore, Applicant respectfully requests favorable reconsideration and allowance.

Should the Examiner wish to discuss any aspect of this case, the Examiner is invited to call the undersigned at (312) 913-3305.

Respectfully submitted,

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